



SPECIFICATIONS

CUSTOMER	:	CCS003
SAMPLE CODE	:	SE13264WRF-011-K-Q
MASS PRODUCTION CODE	:	PE13264WRF-011-K-Q
SAMPLE VERSION	:	02
SPECIFICATIONS EDITION	:	006
DRAWING NO. (Ver.)	:	JLMD-PE13264WRF-011-K-Q_003
PACKAGING NO. (Ver.)	:	JPKG-PE13264WRF-011-K-Q_002

Customer Approved

Date:



Approved	Checked	Designer
閔偉	李昀	劉進

- Preliminary Specification for Design Input
- Specification for Sample Approval

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Note : For detailed information please refer to IC data sheet : ST7567-G4

1. SPECIFICATIONS

1.1 Features

Item	Standard Value
Display Type	132 * 64 Dots
LCD Type	FSTN, Positive, Transflective
Driver Condition	LCD Module : 1/65 Duty, 1/9 Bias
Viewing Direction	12 H
Interface	4 line SPI
Driver IC	ST7567-G4
ROHS	THIS PRODUCT CONFORMS THE ROHS OF PTC Detail information please refer website : http://www.powertip.com.tw/news.php?area_id_view=1085560481/

1.2 Mechanical Specifications

Item	Standard Value	Unit
Outline Dimension	77.3 (L) * 47.8 (W) * 14.3 (H)(Typ)	mm
Viewing Area	72.0(L) * 36.5 (W)	mm
Active Area	68.62 (L) * 33.26 (W)	mm
Dot Size	0.50 (L) * 0.50 (W)	mm
Dot Pitch	0.52 (L) * 0.52 (W)	mm

Note : For detailed information please refer to LCM Drawing.

1.3 Absolute Maximum Ratings

Item	Symbol	Condition	Min.	Max.	Unit
Power Supply Voltage	VDD	-	-0.3	+3.6	V
LCD Driver Supply Voltage	VOP	V0-XV0	-0.3	+16.0	V
Input Voltage	VIN	-	-0.3	VDD+0.3	V
Operating Temperature	TOP	-	-20	70	°C
Storage Temperature	TST	-	-30	80	°C
Storage Humidity	HD	Ta < 60 °C	-	90	%RH

1.4 DC Electrical Characteristics

VDD=3.0V, VSS=0V, Ta=25°C

Item	Symbol	Condition	Min	Typ	Max	Unit
Logic Supply Voltage	VDD	-	2.4	3.0	3.3	V
“H” Input Voltage	VIH	-	0.7VDD	-	VDD	V
“L” Input Voltage	VIL	-	VSS	-	0.3VDD	V
“H” Output Voltage	VOH	-	0.8VDD	-	VDD	V
“L” Output Voltage	VOL	-	VSS	-	0.2VDD	V
Supply current	IDD	VDD=3.0V, VOP=8.9V	-	1.0	1.5	mA
LCM Driver Voltage	VOP *1	Ta = -20°C	8.9	9.1	9.3	V
		Ta = 25°C	8.7	8.9	9.2	
		Ta = 70°C	8.5	8.7	8.9	

Note : *1. The VOP test point is V0-XV0.

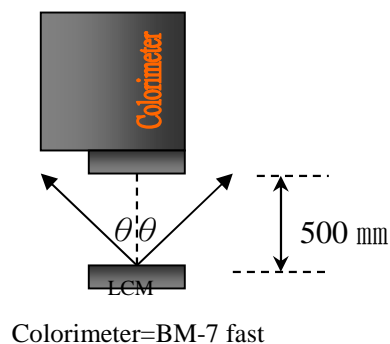
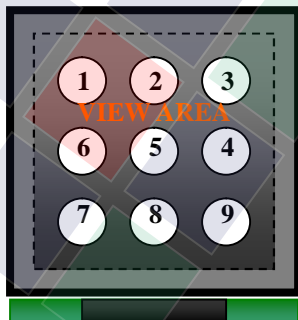
1.5 Optical Characteristics

LCD Panel : 1/65Duty, 1/9Bias, VOP=8.9V, Ta=25°C

Item	Symbol	Conditions	Min	Typ	Max	Unit	Reference	
Response Time	Rise	Tr	-	96	144	ms	Note 2	
	Fall	Tf	-	244	366			
Viewing Angle Range	Rear	$\Theta+$	-	40	-	Degree	Note 1	
	Front	$\Theta-$	-	40	-			
	Left	Θ_L	$C \geq 2.0$	-	45			-
	Right	Θ_R	-	-	45			-
Contrast Ratio	CR	$\theta = 0^\circ$	-	3.3	-	-	Note 3	
Average Brightness (with LCD) *2	IV	IF = 75mA	160	280	-	cd / m ²	Note 4	
CIE Color Coordinate (with LCD) *2	X		0.24	0.29	0.34	-		
	Y		0.26	0.31	0.36			
Uniformity *1	ΔB	-	70	-	-	%		

Note 4 :

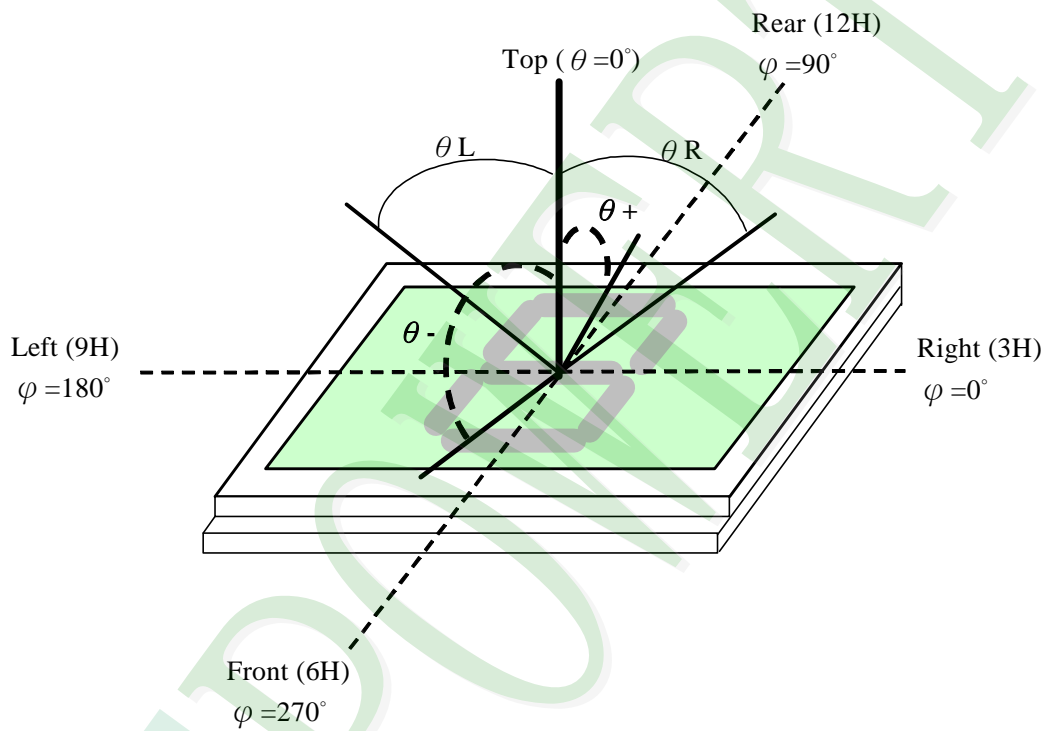
1. $\Delta B = B (\text{min}) / B (\text{max}) * 100\%$.
2. Measurement Condition for Optical Characteristics :
 - a. Environment: $25 \pm 5^\circ\text{C} / 60 \pm 20\%$ R.H , no wind , dark room below 10 Lux at typical lamp current and typical operating frequency.
 - b. Measurement Distance: 500 ± 50 mm ($\theta = 0^\circ$).
 - c. Equipment: TOPCON BM-7 fast (Field 1°) , after 10 minutes operation.
 - d. The uncertainty of the C.I.E coordinate measurement ± 0.01 , Average Brightness $\pm 4\%$.



Note 1.

Optical characteristics-2

Viewing angle

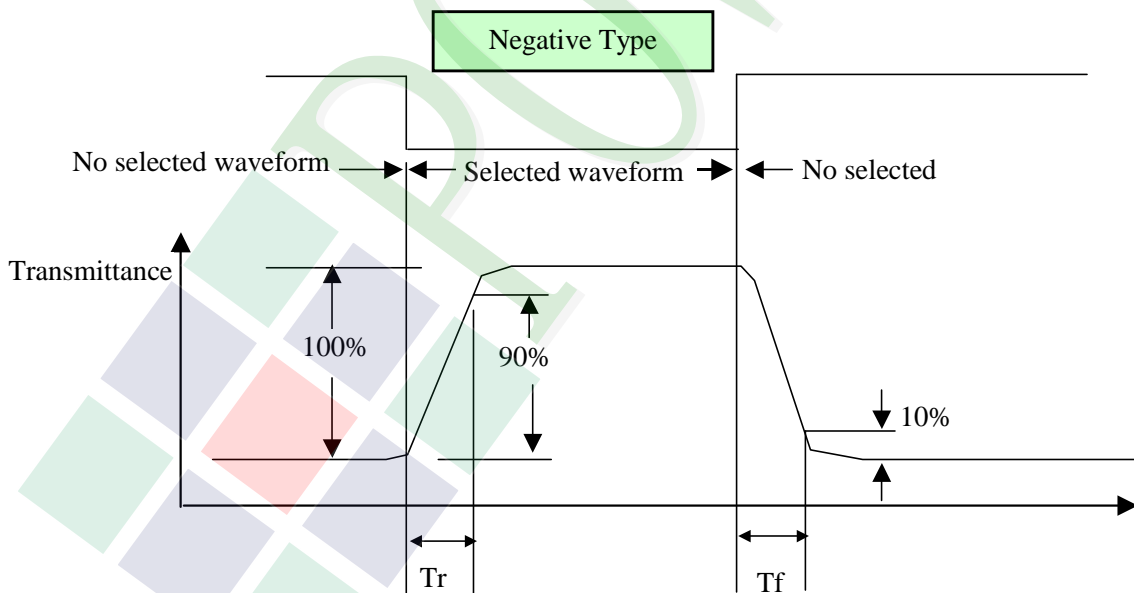
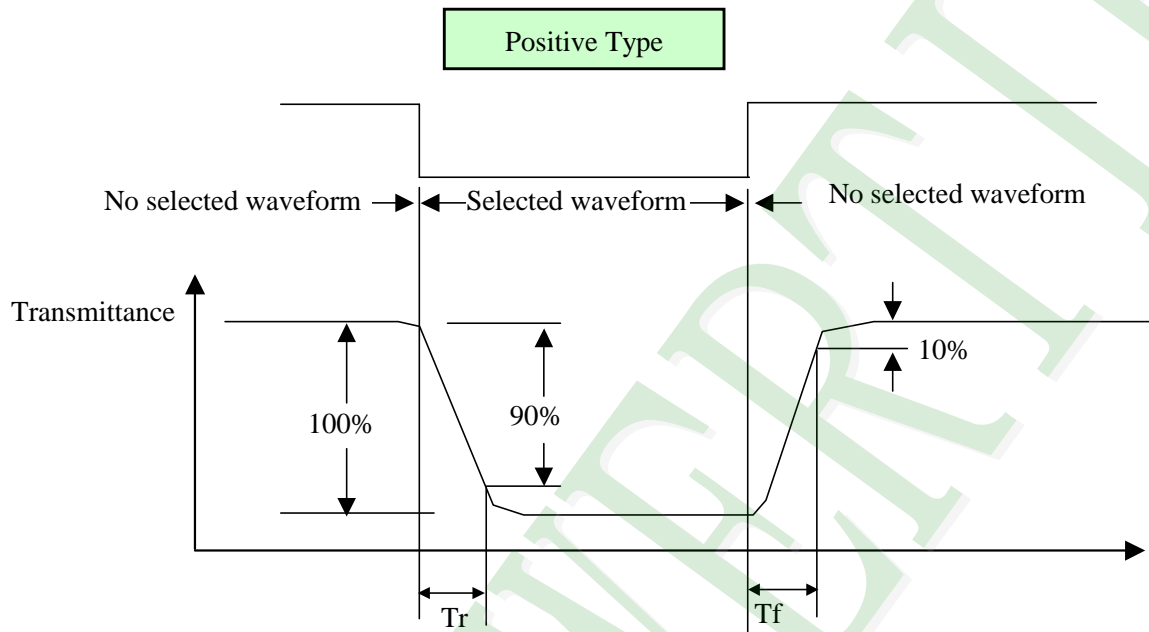


Viewing angle

Note 2.

Optical characteristics-3

Fig.2 Definition of response time





Electrical characteristics-2

※2 Drive waveform

V_{op}: Drive voltage

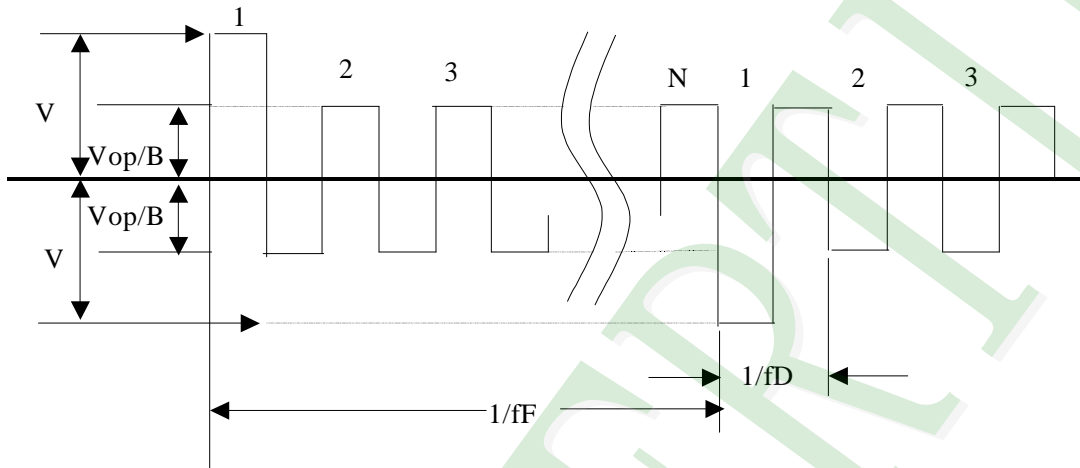
1/B: Bias

N: Duty

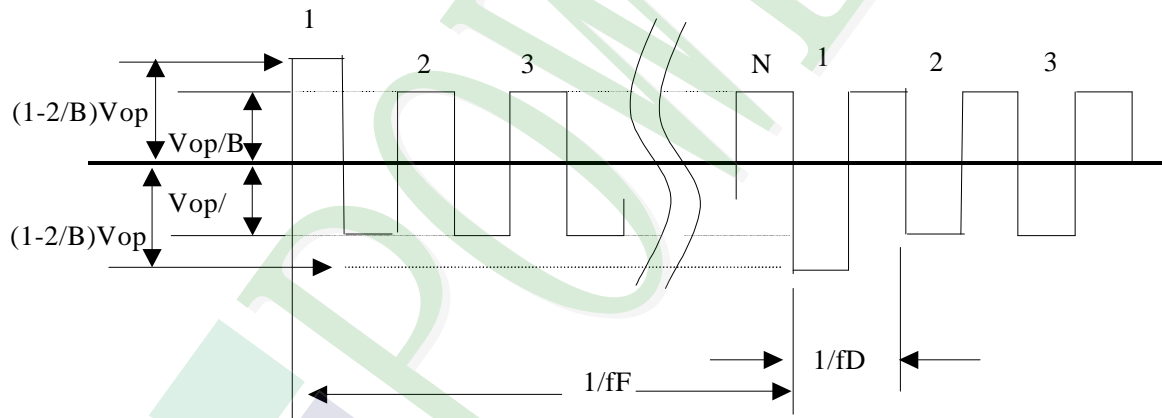
f_F: Frame frequency

f_D: Drive frequency

(1) Selected waveform



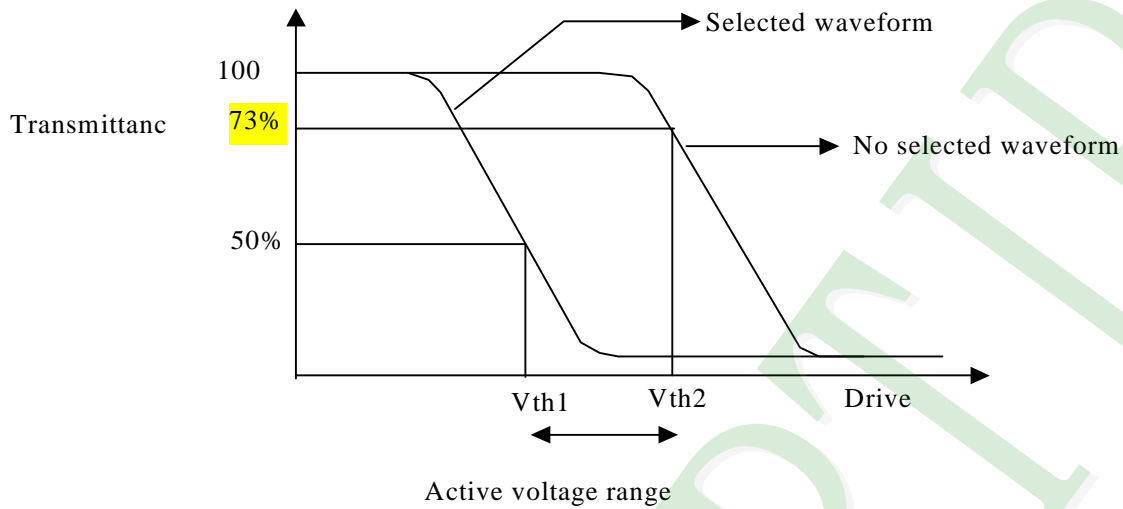
(2) Non- Selected wave form



Note:

Frame frequency is defined as follows: Common side supply voltage peak - to - peak / 2 = 1 period

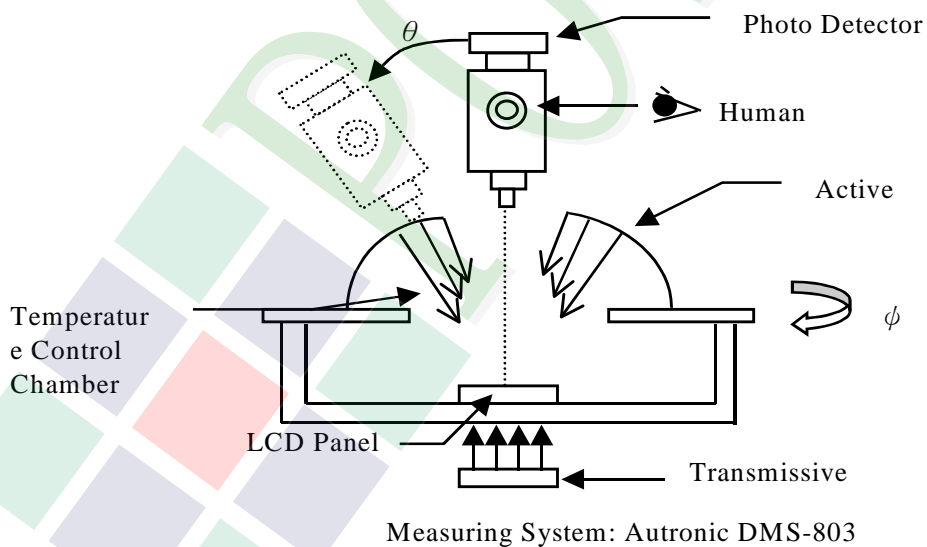
Note 3. : Definition of Vth



	Vth1	Vth2
View direction	10°	40°
Drive waveform	(Selected waveform)	(No selected waveform)
Transmittance	50%	73%

※1 Contrast ratio
 = (Brightness in OFF state) / (Brightness in ON state)

Outline of Electro-Optical Characteristics Measuring System



1.6 Backlight Characteristics

Maximum Ratings

Item	Symbol	Conditions	Min	Max	Unit
Forward Current	IF	Ta = 25°C	-	125	mA
Reverse Voltage	VR	Ta = 25°C	-	5	V
Power Dissipation	PD	Ta = 25°C	-	438	mW

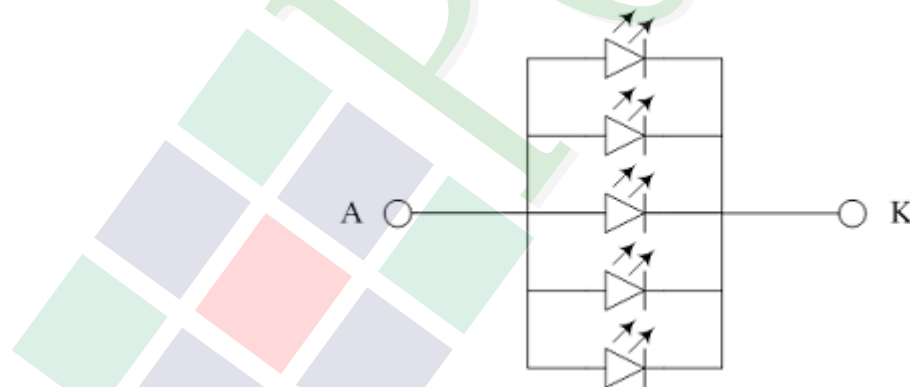
Electrical / Optical Characteristics

Ta = 25°C

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	VF	IF = 75mA	2.8	3.0	3.5	V
Average Brightness (without LCD)	IV		1000	1400	-	cd / m ²
CIE Color Coordinate (without LCD)	X		0.25	0.28	0.31	-
	Y		0.25	0.28	0.31	
Uniformity *1	ΔB		70	-	-	%
Reverse Current	IR	VR = 3.0V	-	-	60	μA
Color	White					

Note :*1. $\Delta B = B (\text{min}) / B (\text{max}) \%$.

Internal Circuit Diagram



Other Description

Item	Conditions	Description
Life Time	Ta =25°C IF= 15mA*5	20000 hrs

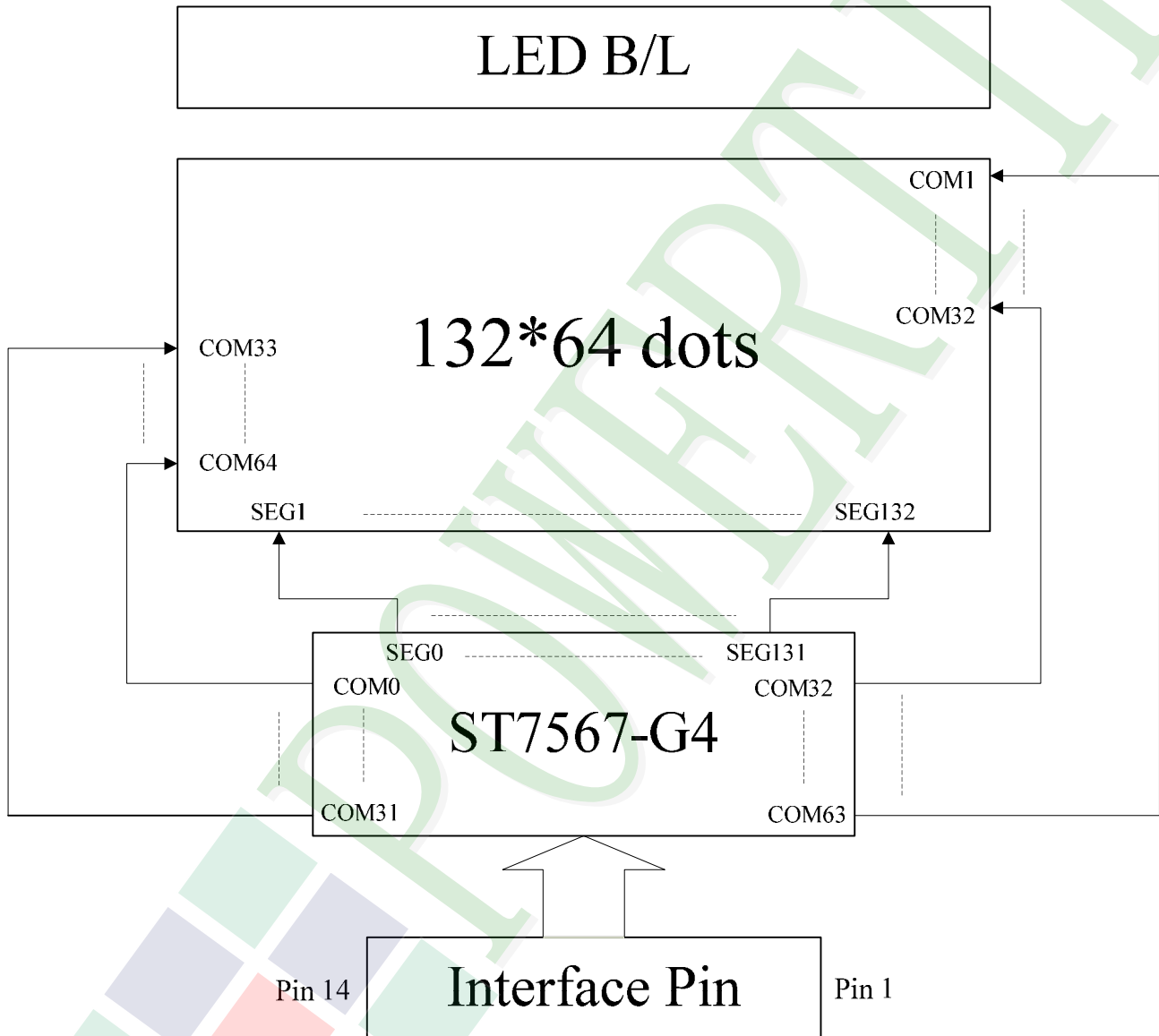
2. MODULE STRUCTURE

2.1 Counter Drawing

2.1.1 LCM Mechanical Diagram

* See Appendix

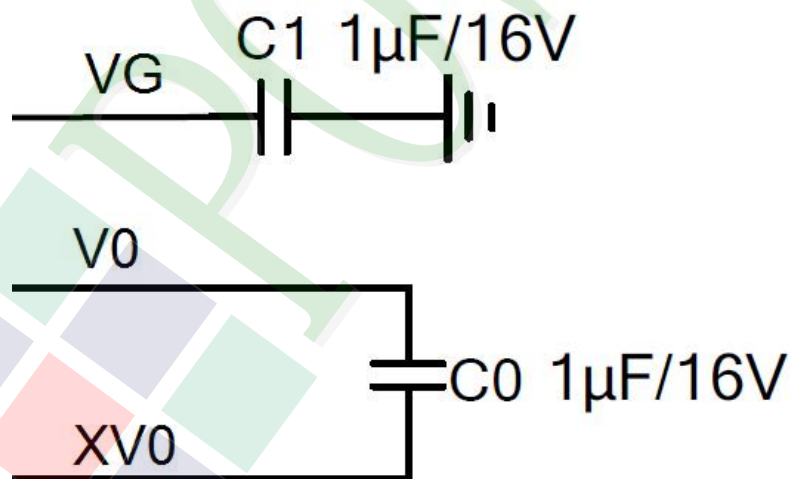
2.1.2 Block Diagram



2.2 Interface Pin Description

Pin No.	Symbol	Function
1	CSB	Chip select input.
2	RSTB	Reset input.
3	A0	Selection between command and display type of data input.
4	SCL	Serial clock input
5	SDA	Serial data input
6	VDD	Logic System Power Supply Pin (3.0V).
7	VSS	System Ground.
8	V0	LCD driving voltage for common circuits at negative frame.
9	XV0	LCD driving voltage for common circuits at positive frame.
10	NC	No Connect.
11	VG	LCD driving voltage for segment circuits.
12	A	Power supply for backlight (+)
13	K	Power supply for backlight (-)
14	NC	No Connect.

2.2.1 Application Notes



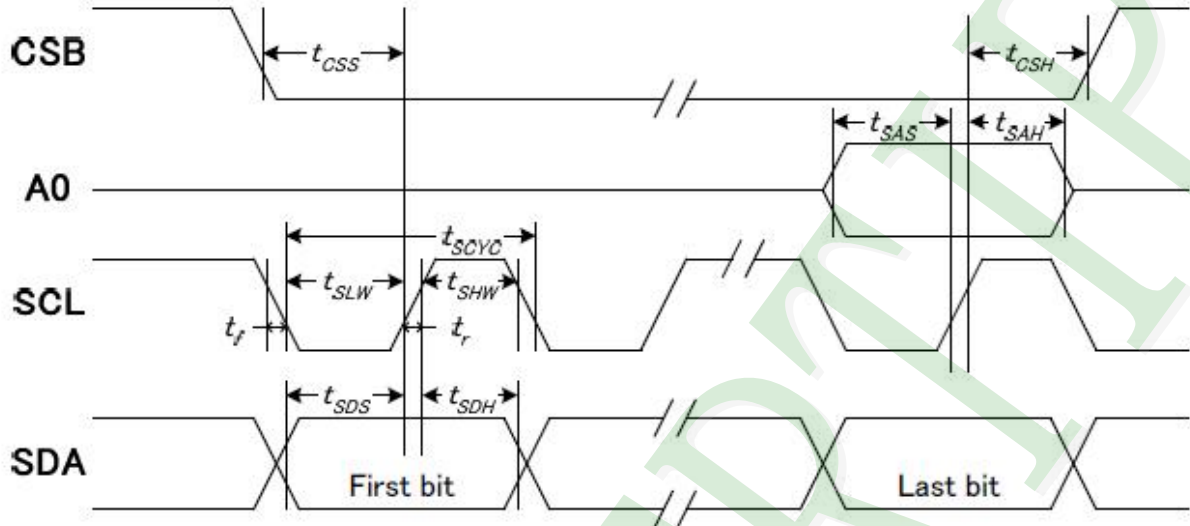


2.2.2 Refer Initial Code

```
void Initial_Main(void)    // For ST7567
{
WriteCOM_Main(0xA2);    //Select bias setting
WriteCOM_Main(0xA0);    //Set scan direction of SEG
WriteCOM_Main(0xC8);    //Set output direction of COM
WriteCOM_Main(0x40);    //Set display start line
WriteCOM_Main(0x25);    //Select regulation resistor ratio
WriteCOM_Main(0x81);    //Set electronic volume (EV) level
WriteCOM_Main(0x1B);    //Set electronic volume (EV) level
WriteCOM_Main(0xF8);    //Set booster level:
WriteCOM_Main(0x01);    //Set booster level:
WriteCOM_Main(0x2F);    //Control built-in power circuit ON
WriteCOM_Main(0xAF);    //Display ON
}
```

2.3 Timing Characteristics

System Bus Timing for 4-Line Serial Interface

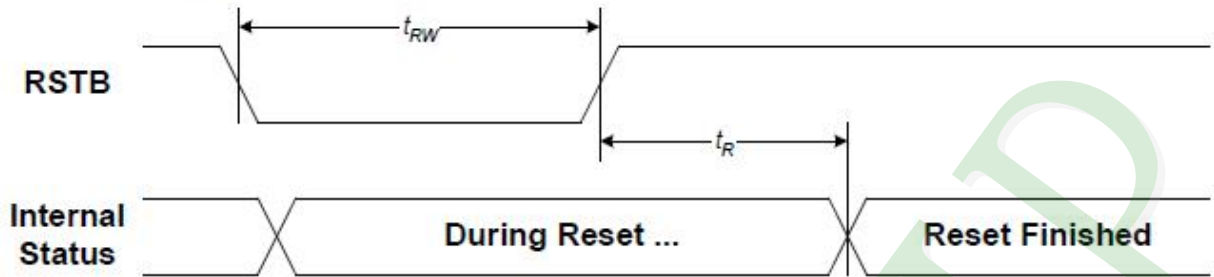


(VDD = 3.3V, Ta = 25°C)

Item	Signal	Symbol	Condition	Min.	Max.	Unit
Serial clock period	SCLK	tSCYC		50	—	ns
SCLK "H" pulse width		tSHW		25	—	
SCLK "L" pulse width		tSLW		25	—	
Address setup time	A0	tSAS		20	—	
Address hold time		tSAH		10	—	
Data setup time	SDA	tSDS		20	—	
Data hold time		tSDH		10	—	
CSB-SCLK time	CSB	tCSS		20	—	
CSB-SCLK time		tCSH		40	—	



Hardware Reset Timing

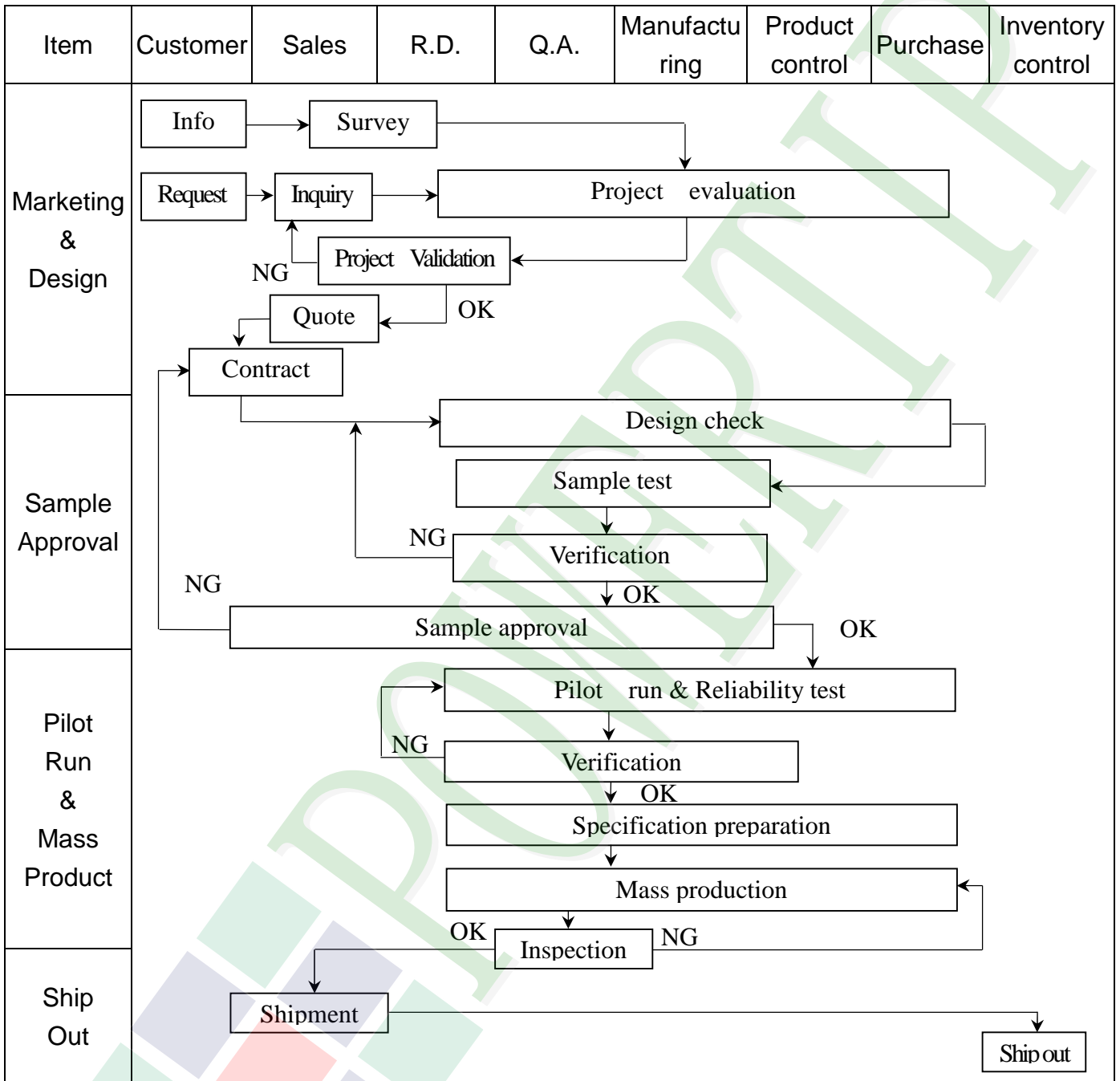


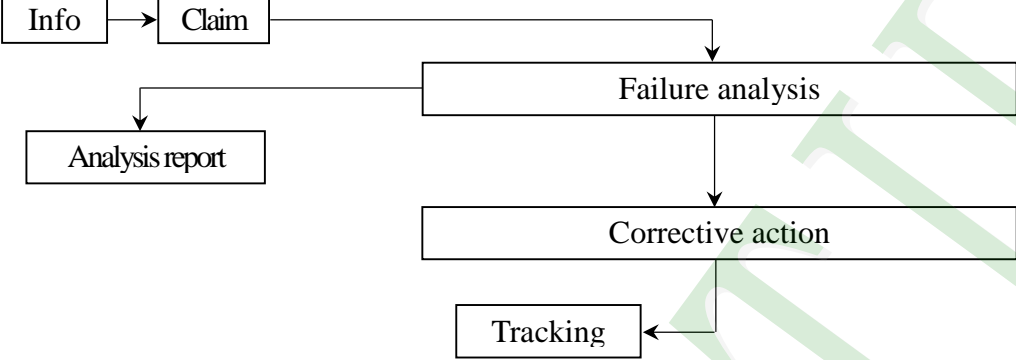
(VDD = 3.3V, Ta = 25°C)

Item	Symbol	Condition	Min.	Max.	Unit
Reset time	tR		—	1.0	us
Reset "L" pulse width	tRW		1.0	—	

3. QUALITY ASSURANCE SYSTEM

3.1 Quality Assurance Flow Chart



Item	Customer	Sales	R.D.	Q.A	Manufacturing	Product control	Purchase	Inventory control
Sales Service	 <pre> graph TD Info[Info] --> Claim[Claim] Claim --> Failure[Failure analysis] Failure --> Report[Analysis report] Failure --> Action[Corrective action] Action --> Tracking[Tracking] </pre>							
Q.A. Activity	1. ISO 9001 Maintenance Activities 3. Equipment calibration 5. Standardization Management				2. Process improvement proposal 4. Education And Training Activities			

3.2. Inspection Specifications

- ◆ **Scope :** The document shall be applied to LCD Module for Monotype and Color STN(Ver. B01).
- ◆ **Inspection Standard :** MIL-STD-105E Table Normal Inspection Single Sampling Level II .
- ◆ **Equipment :** Gauge 、 MIL-STD 、 Powertip Tester 、 Sample
- ◆ **Defect Level :** Major Defect AQL : 0.4 ; Minor Defect : AQL : 1.5 .
- ◆ **OUT Going Defect Level :** Sampling .
- ◆ **Manner of appearance test :**
 - (1). The test be under 20W×2 fluorescent light ' and distance of view must be at 30 cm.
 - (2). Standard of inspection : (Unit : mm)
 - (3). The test direction is base on about around 45° of vertical line. (Fig. 1)
 - (4). Definition of area . (Fig. 2)

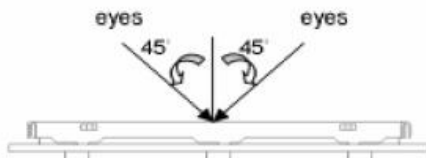


Fig.1

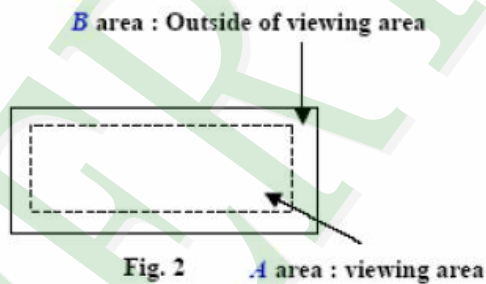


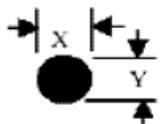
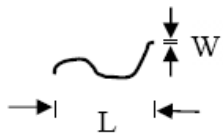
Fig. 2

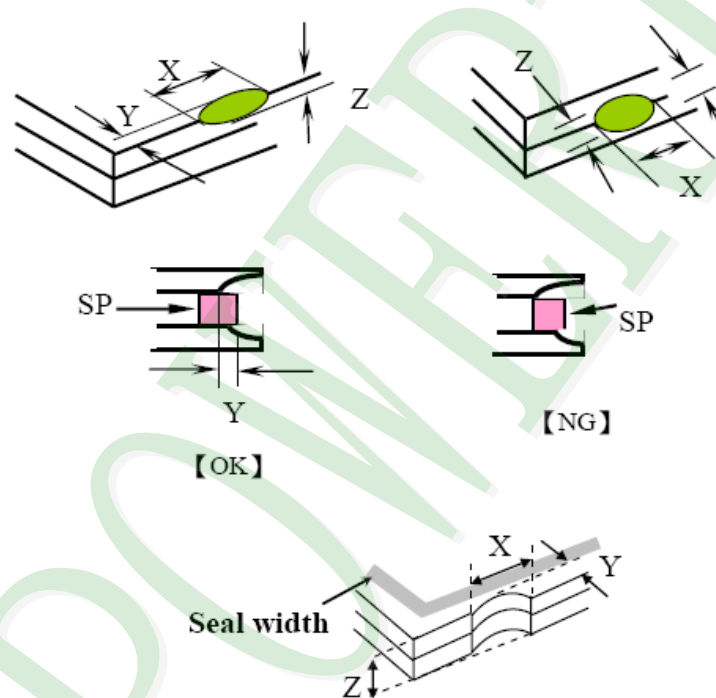
◆ Specification:

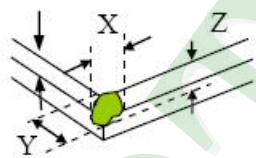
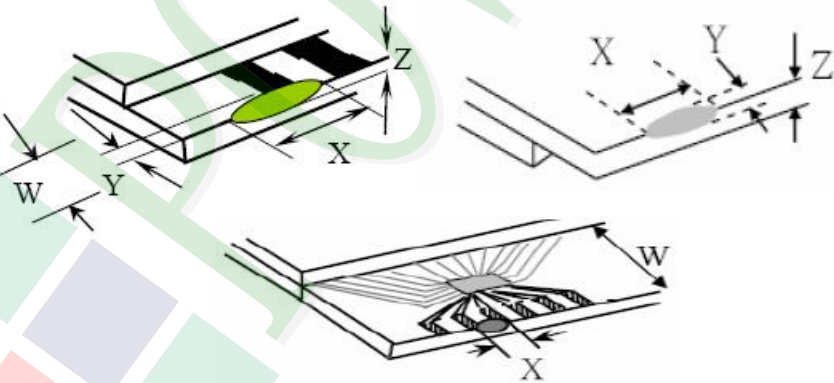
NO	Item	Criterion	Level
01	Product condition	1. 1 The part number is inconsistent with work order of Production.	Major
		1. 2 Mixed production types.	Major
		1. 3 Assembled in inverse direction.	Major
02	Quantity	2. 1 The quantity is inconsistent with work order of production.	Major
03	Outline dimension	3. 1 Product dimension and structure must conform to Structure diagram.	Major
04	Electrical Testing	4. 1 Missing line character and icon.	Major
		4. 2 No function or no display.	Major
		4. 3 Output data is error.	Major
		4. 4 LCD viewing angle defect.	Major
		4. 5 Current consumption exceeds product specifications.	Major

◆ Specification For Monotype and Color STN :

(Ver. B01)

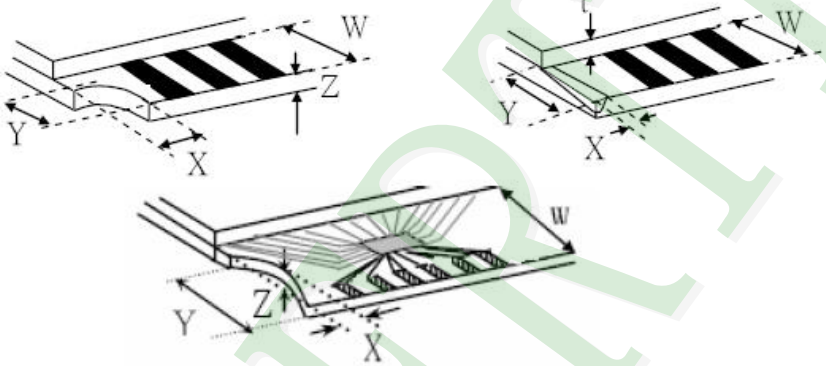
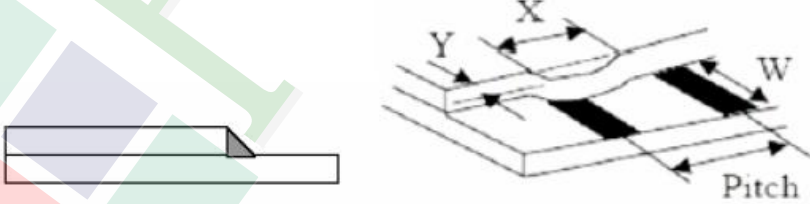
NO	Item	Criterion	Level																																					
05	Black or white dot、scratch、contamination Round type  $\Phi = (x+y)/2$ Line type 	5. 1 Round type: 5. 1. 1 display only : <ul style="list-style-type: none"> • White and black spots on display ≤ 0.30 mm , no more than 4 white or black spots present. • Densely spaced : NO more than two spots or lines within 3 mm. 5. 1. 2 Non-display : <table border="1" data-bbox="486 660 1332 1008"> <thead> <tr> <th rowspan="2">Dimension (diameter : Φ)</th> <th colspan="2">Acceptance (Q'ty)</th> </tr> <tr> <th>A area</th> <th>B area</th> </tr> </thead> <tbody> <tr> <td>$\Phi \leq 0.10$</td> <td colspan="2">Accept no dense</td> </tr> <tr> <td>$0.10 < \Phi \leq 0.20$</td> <td>3</td> <td rowspan="2">Ignore</td> </tr> <tr> <td>$0.20 < \Phi \leq 0.30$</td> <td>2</td> </tr> <tr> <td>Total quantity</td> <td>4</td> <td></td> </tr> </tbody> </table> 5. 1. 3 Line type: <table border="1" data-bbox="438 1075 1380 1422"> <thead> <tr> <th colspan="2">Dimension</th> <th colspan="2">Acceptance (Q'ty)</th> </tr> <tr> <th>Length (L)</th> <th>Width (W)</th> <th>A area</th> <th>B area</th> </tr> </thead> <tbody> <tr> <td>---</td> <td>$W \leq 0.03$</td> <td>Accept no dense</td> <td rowspan="3">Ignore</td> </tr> <tr> <td>$L \leq 3.0$</td> <td>$0.03 < W \leq 0.05$</td> <td rowspan="2">4</td> </tr> <tr> <td>$L \leq 2.5$</td> <td>$0.05 < W \leq 0.075$</td> </tr> <tr> <td>---</td> <td>$W > 0.075$</td> <td colspan="2">As round type</td> </tr> </tbody> </table>	Dimension (diameter : Φ)	Acceptance (Q'ty)		A area	B area	$\Phi \leq 0.10$	Accept no dense		$0.10 < \Phi \leq 0.20$	3	Ignore	$0.20 < \Phi \leq 0.30$	2	Total quantity	4		Dimension		Acceptance (Q'ty)		Length (L)	Width (W)	A area	B area	---	$W \leq 0.03$	Accept no dense	Ignore	$L \leq 3.0$	$0.03 < W \leq 0.05$	4	$L \leq 2.5$	$0.05 < W \leq 0.075$	---	$W > 0.075$	As round type		Minor
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06	Polarizer Bubble	<table border="1" data-bbox="438 1467 1380 1870"> <thead> <tr> <th rowspan="2">Dimension (diameter : Φ)</th> <th colspan="2">Acceptance (Q'ty)</th> </tr> <tr> <th>A area</th> <th>B area</th> </tr> </thead> <tbody> <tr> <td>$\Phi \leq 0.20$</td> <td colspan="2">Accept no dense</td> </tr> <tr> <td>$0.20 < \Phi \leq 0.50$</td> <td>3</td> <td rowspan="3">Ignore</td> </tr> <tr> <td>$0.50 < \Phi \leq 1.00$</td> <td>2</td> </tr> <tr> <td>$\Phi > 1.00$</td> <td>0</td> </tr> <tr> <td>Total quantity</td> <td>4</td> <td></td> </tr> </tbody> </table>	Dimension (diameter : Φ)	Acceptance (Q'ty)		A area	B area	$\Phi \leq 0.20$	Accept no dense		$0.20 < \Phi \leq 0.50$	3	Ignore	$0.50 < \Phi \leq 1.00$	2	$\Phi > 1.00$	0	Total quantity	4		Minor																			
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$\Phi > 1.00$	0																																							
Total quantity	4																																							

NO	Item	Criterion	Level						
07	The crack of glass	<p>Symbols :</p> <p>X : The length of crack Z : The thickness of crack t : The thickness of glass</p> <p>Y : The width of crack. W : terminal length a : LCD side length</p>	Minor						
		<p>7.1 General glass chip :</p> <p>7.1.1 Chip on panel surface and crack between panels:</p>  <table border="1" data-bbox="502 1500 1300 1780"> <thead> <tr> <th>X</th> <th>Y</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>$\leq a$</td> <td>Crack can't enter viewing area</td> <td>$\leq 1/2 t$</td> </tr> <tr> <td>$\leq a$</td> <td>Crack can't exceed the half of SP width.</td> <td>$1/2 t < Z \leq 2 t$</td> </tr> </tbody> </table>		X	Y	Z	$\leq a$	Crack can't enter viewing area	$\leq 1/2 t$
X	Y	Z							
$\leq a$	Crack can't enter viewing area	$\leq 1/2 t$							
$\leq a$	Crack can't exceed the half of SP width.	$1/2 t < Z \leq 2 t$							

NO	Item	Criterion	Level									
07	The crack of glass	<p>Symbols :</p> <p>X : The length of crack Z : The thickness of crack t : The thickness of glass</p> <p>Y : The width of crack. W : terminal length a : LCD side length</p> <hr/> <p>7.1.2 Corner crack :</p>  <table border="1" data-bbox="497 810 1316 1102"> <thead> <tr> <th>X</th> <th>Y</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>$\leq 1/5 a$</td> <td>Crack can't enter viewing area</td> <td>$Z \leq 1/2 t$</td> </tr> <tr> <td>$\leq 1/5 a$</td> <td>Crack can't exceed the half of SP width.</td> <td>$1/2 t < Z \leq 2 t$</td> </tr> </tbody> </table>	X	Y	Z	$\leq 1/5 a$	Crack can't enter viewing area	$Z \leq 1/2 t$	$\leq 1/5 a$	Crack can't exceed the half of SP width.	$1/2 t < Z \leq 2 t$	Minor
		X	Y	Z								
$\leq 1/5 a$	Crack can't enter viewing area	$Z \leq 1/2 t$										
$\leq 1/5 a$	Crack can't exceed the half of SP width.	$1/2 t < Z \leq 2 t$										
<p>7.2 Protrusion over terminal :</p> <p>7.2.1 Chip on electrode pad :</p>  <table border="1" data-bbox="466 1684 1252 1859"> <thead> <tr> <th></th> <th>X</th> <th>Y</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>Front</td> <td>$\leq a$</td> <td>$\leq 1/2 W$</td> <td>$\leq t$</td> </tr> <tr> <td>Back</td> <td colspan="3">Neglect</td> </tr> </tbody> </table>		X	Y	Z	Front	$\leq a$	$\leq 1/2 W$	$\leq t$	Back	Neglect		
	X	Y	Z									
Front	$\leq a$	$\leq 1/2 W$	$\leq t$									
Back	Neglect											

◆ Specification For Monotype and Color STN :

(Ver. B01)

NO	Item	Criterion	Level									
07	The crack of glass	<p>Symbols :</p> <p>X : The length of crack Z : The thickness of crack t : The thickness of glass</p> <p>Y : The width of crack. W : terminal length a : LCD side length</p>	Minor									
		<p>7.2.2 Non-conductive portion :</p>  <table border="1" data-bbox="580 1048 1206 1200"> <thead> <tr> <th>X</th> <th>Y</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>$\leq 1/3 a$</td> <td>$\leq W$</td> <td>$\leq t$</td> </tr> </tbody> </table> <p>⊙ If the chipped area touches the ITO terminal, over 2/3 of the ITO must remain and be inspected according to electrode terminal specifications.</p> <p>7.2.3 Glass remain :</p>  <table border="1" data-bbox="501 1729 1190 1868"> <thead> <tr> <th>X</th> <th>Y</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>$\leq a$</td> <td>$\leq 1/3 W$</td> <td>$\leq t$</td> </tr> </tbody> </table>		X	Y	Z	$\leq 1/3 a$	$\leq W$	$\leq t$	X	Y	Z
X	Y	Z										
$\leq 1/3 a$	$\leq W$	$\leq t$										
X	Y	Z										
$\leq a$	$\leq 1/3 W$	$\leq t$										

4. RELIABILITY TEST

4.1 Reliability Test Condition

NO.	TEST ITEM	TEST CONDITION										
1	High Temperature Storage Test	Keep in + 80 ± 2 °C, 96 hrs. Surrounding temperature, then storage at normal condition 4hrs.										
2	Low Temperature Storage Test	Keep in - 30 ± 2 °C, 96 hrs. Surrounding temperature, then storage at normal condition 4hrs.										
3	High Temperature / High Humidity Storage Test	Keep in + 60 °C / 90% R.H duration for 96 hrs. Surrounding temperature, then storage at normal condition 4hrs (Excluding the polarizer).										
4	ESD Test	Air Discharge: Apply 2 KV with 5 times Discharge for each polarity +/-										
		Contact Discharge: Apply 250 V with 5 times Discharge for each polarity +/-										
4	ESD Test	<ol style="list-style-type: none"> 1. Temperature ambience : 15 ~ 35 °C 2. Humidity relative : 30 ~ 60 % 3. Energy Storage Capacitance (Cs + Cd) : 150pF ± 10% 4. Discharge Resistance(Rd) : 330Ω ± 10% 5. Discharge, mode of operation : Single Discharge (time between successive discharges at least 1 sec). (Tolerance if the output voltage indication : ± 5%).										
5	Temperature Cycling Storage Test	$-30\text{ }^{\circ}\text{C} \rightarrow +25\text{ }^{\circ}\text{C} \rightarrow +80\text{ }^{\circ}\text{C} \rightarrow +25\text{ }^{\circ}\text{C}$ $(30\text{mins}) (5\text{mins}) (30\text{mins}) (5\text{mins})$ <p style="text-align: center;">←————— 10 Cycle —————→</p> Surrounding temperature, then storage at normal condition 4hrs.										
6	Vibration Test (Packaged)	<ol style="list-style-type: none"> 1. Sine wave 10 ~ 55 Hz frequency (1 min) 2. The amplitude of vibration : 1.5 mm 3. Each direction (X 、 Y 、 Z) duration for 2 Hrs 										
7	Drop Test (Packaged)	<table border="1"> <thead> <tr> <th>Packing Weight (kg)</th> <th>Drop Height (cm)</th> </tr> </thead> <tbody> <tr> <td>0 ~ 45.4</td> <td>122</td> </tr> <tr> <td>45.4 ~ 90.8</td> <td>76</td> </tr> <tr> <td>90.8 ~ 454</td> <td>61</td> </tr> <tr> <td>Over 454</td> <td>46</td> </tr> </tbody> </table>	Packing Weight (kg)	Drop Height (cm)	0 ~ 45.4	122	45.4 ~ 90.8	76	90.8 ~ 454	61	Over 454	46
		Packing Weight (kg)	Drop Height (cm)									
0 ~ 45.4	122											
45.4 ~ 90.8	76											
90.8 ~ 454	61											
Over 454	46											
		Drop direction :※1 corner / 3 edges / 6 sides each 1times										

5. PRECAUTION RELATING PRODUCT HANDLING

5.1 SAFETY

- 5.1.1 If the LCD panel breaks , be careful not to get the liquid crystal to touch your skin.
- 5.1.2 If the liquid crystal touches your skin or clothes , please wash it off immediately by using soap and water.

5.2 HANDLING

- 5.2.1 Avoid any strong mechanical shock which can break the glass.
- 5.2.2 Avoid static electricity which can damage the CMOS LSI—When working with the module , be sure to ground your body and any electrical equipment you may be using.
- 5.2.3 Do not remove the panel or frame from the module.
- 5.2.4 The polarizing plate of the display is very fragile. So , please handle it very carefully ,do not touch , push or rub the exposed polarizing with anything harder than an HB pencil lead (glass , tweezers, etc.)
- 5.2.5 Do not wipe the polarizing plate with a dry cloth , as it may easily scratch the surface of plate.
- 5.2.6 Do not touch the display area with bare hands, this will stain the display area.
- 5.2.7 Do not use ketonics solvent & aromatic solvent. Use with a soft cloth soaked with a cleaning naphtha solvent.
- 5.2.8 To control temperature and time of soldering is $320\pm 10^{\circ}\text{C}$ and 3-5 sec.
- 5.2.9 To avoid liquid (include organic solvent) stained on LCM.

5.3 STORAGE

- 5.3.1 Store the panel or module in a dark place where the temperature is $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$ and the humidity is below 65% RH.
- 5.3.2 Do not place the module near organics solvents or corrosive gases.
- 5.3.3 Do not crush , shake , or jolt the module.

5.4 TERMS OF WARRANTY

- 5.4.1 Applicable warrant period
The period is within thirteen months since the date of shipping out under normal using and storage conditions.
- 5.4.2 Unaccepted responsibility
This product has been manufactured to your company's specification as a part for use in your company's general electronic products. It is guaranteed to perform according to delivery specifications. For any other use apart from general electronic equipment , we cannot take responsibility if the product is used in nuclear power control equipment , aerospace equipment , fire and security systems or any other applications in which there is a direct risk to human life and where extremely high levels of reliability are required.

A

B

C

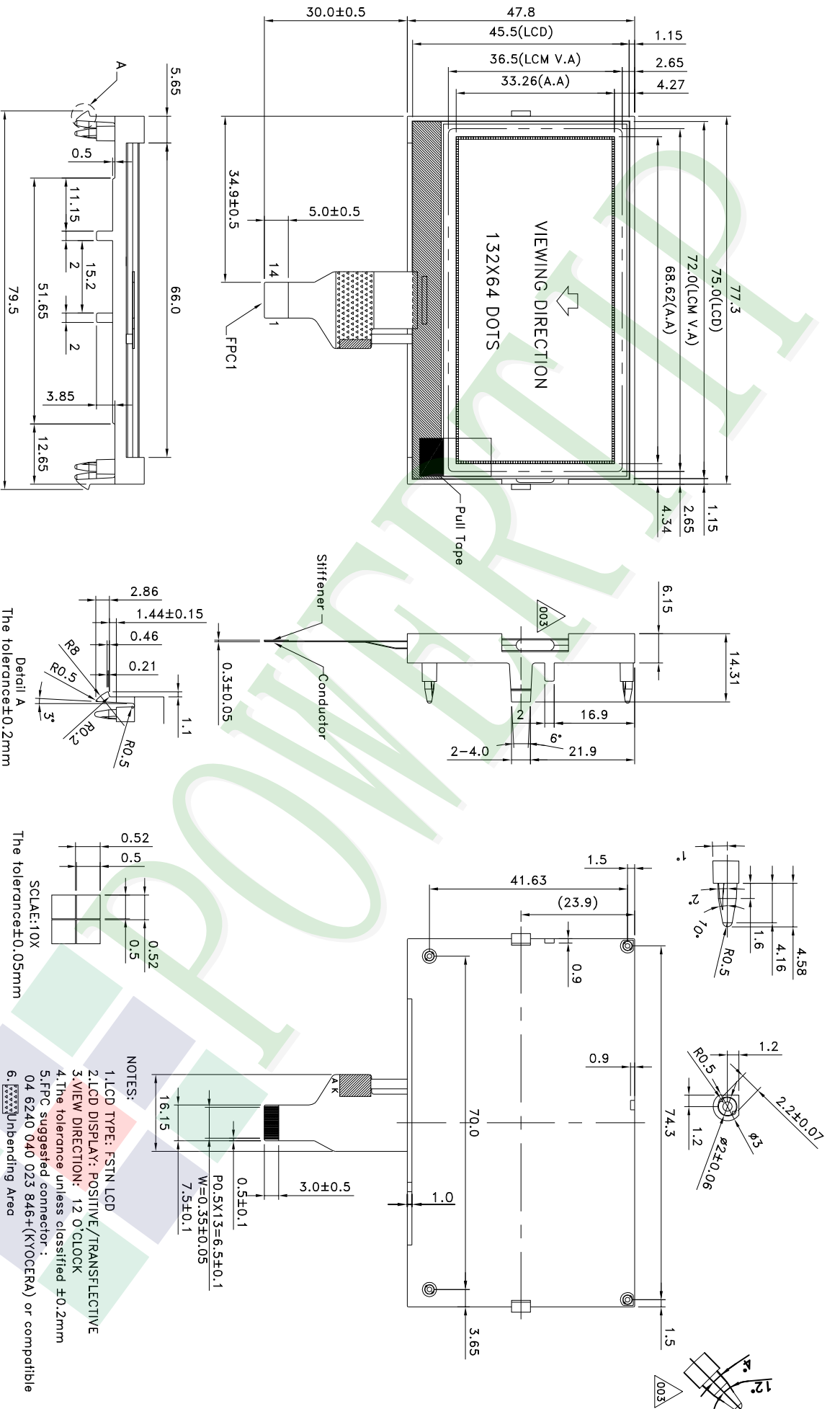
D

E

F

G

H



007			PART NO:	PE13264WRF-011-K-Q	Design	Terry	 久正光电股份有限公司 POWER TIP TECHNOLOGY CORPORATION	Surface	(3)	
006			DRAWING NAME:	JLMD-PE13264WRF-011-K-Q	Check	Eddy		Material	1 ~ 4	
005			TITLE:	LCD MODULE DRAWING	Approve	Ryan		Thickness	4 ~ 16	
003	MODIFY BACKLIGHT	Terry	DATE	2015/1/24				63 ~ 250		
002	MODIFY BACKLIGHT	Terry	DATE	2015/10/20				250 ~ 1000		
001	NEW DRAWING	Terry	DATE	2015/03/09						
REV	REV BY	REVISER	DATE							

PT-A-054-01

1. 包裝材料規格表 (Packaging Material) : (per carton)

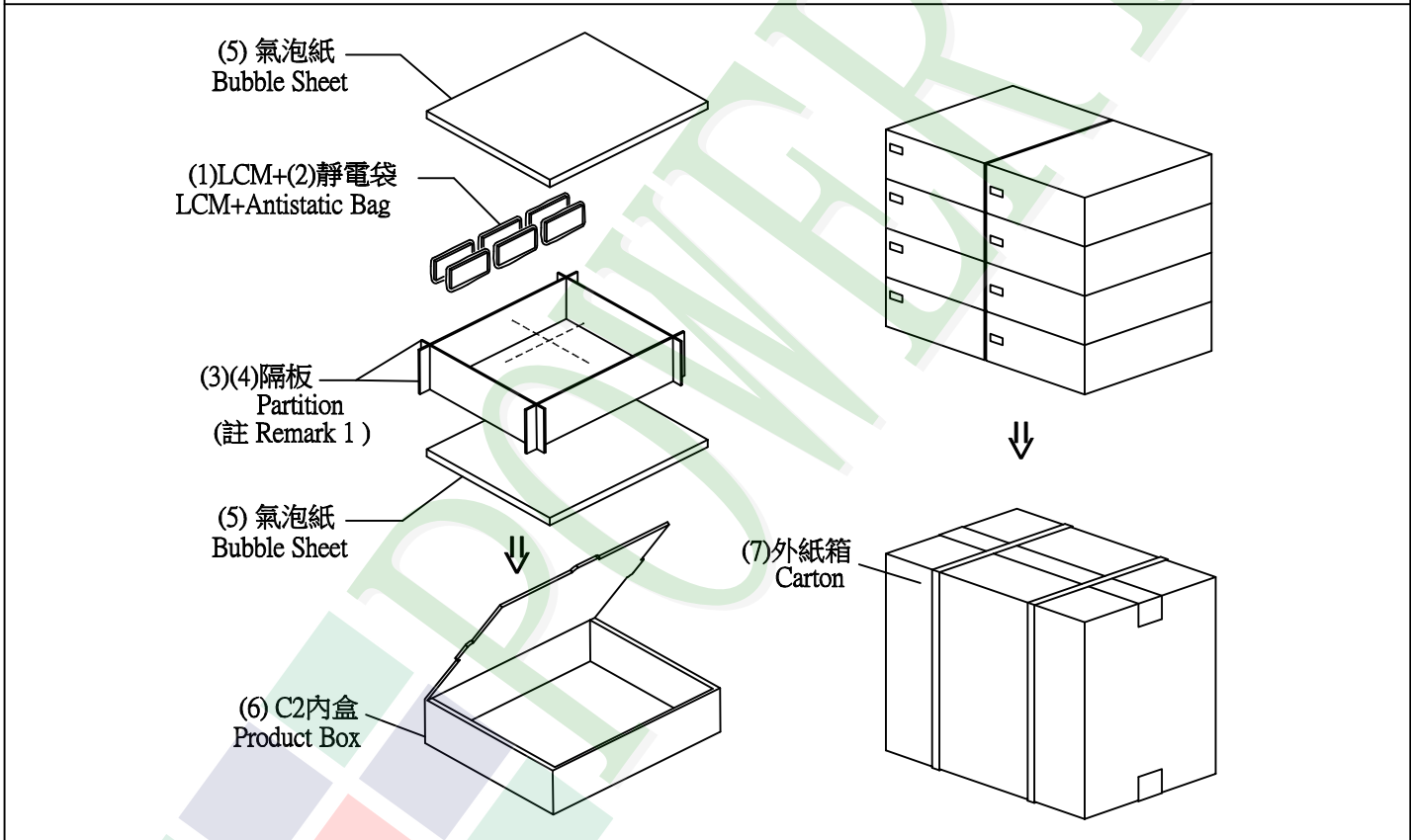
No.	Item	Model	Dimensions (mm)	1Pcs Weight	Quantity	Total Weight
1	成品 (1)LCM	PE13264WRF-011-K-Q	77.3X47.8X14.31	0.032	240	7.68
2	靜電袋(2)Antistatic Bag	BAG150120ARABA	150 X 120	0.0018	240	0.432
3	A2-1隔板(3)A2-1 Partition	BX29300070BMBA △	293 X 70 X 3.0	0.0109	88	0.9592
4	B2-1隔板(4)B2-1 Partition	BX24500070BLBA △	245 X 70 X 3.0	0.0094	32	0.3008
5	氣泡紙(5)Bubble Sheet	BAG280240BWABA	280 X 240	0.006	16	0.096
6	C2內盒(6)Product Box	BX31025580AABA	310 X 255 X 86	0.16	8	1.28
7	外紙箱(7)Carton	BX52732536CCBA	527 X 325 X 360	0.83	1	0.83
8						
9						

2. 一整箱總重量 (Total LCD Weight in carton) : 11.58 Kg±10%

3. 單箱數量規格表 (Packaging Specifications and Quantity) :

(1)Quantity Of Spacer : A2-1隔板 X 11 , B2-1隔板 X 4

(2)Total LCM quantity in carton : quantity per box 30 x no of boxes 8 = 240



特 記 事 項 (REMARK)

1. LCM排放示意圖(前後間隔不放置):
1. LCM placed as figure showing:
(First and last slot should be empty)

▣ 模組(LCM) X 1pcs.

After modify B/L plastic leg surface to be smooth:

